

Clinical Procedures (CP) Flowsheets (MD*1.0*61)
Deployment, Installation, Back-Out, and Rollback
Guide



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Artifact Rationale

This document describes the Deployment, Installation, Back-out, and Rollback Plan for new products going into the VA Enterprise. The plan includes information about system support, issue tracking, escalation processes, and roles and responsibilities involved in all those activities. Its purpose is to provide clients, stakeholders, and support personnel with a smooth transition to the new product or software, and should be structured appropriately, to reflect particulars of these procedures at a single or at multiple locations.

Per the Veteran-focused Integrated Process (VIP) Guide, the Deployment, Installation, Back-out, and Rollback Plan is required to be completed prior to Critical Decision Point #2 (CD #2), with the expectation that it will be updated throughout the lifecycle of the project for each build, as needed.

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1. Introduction

This document describes how to deploy and install CP Flowsheets v1.0.61.1, as well as how to back-out the product and rollback to a previous version or data set. This document is a companion to the project charter and management plan for this effort. In cases where a non-developed Commercial off the shelf tools (COTS) product is being installed, the vendor provided User and Installation Guide may be used, but the Back-Out Recovery strategy still needs to be included in this document.

1.1.Purpose

The purpose of this plan is to provide a single, common document that describes how, when, where, and to whom CP Flowsheets v1.0.61.1 will be deployed and installed, as well as how it is to be backed out and rolled back, if necessary. The plan also identifies resources, communications plan, and rollout schedule. Specific instructions for installation, back-out, and rollback are included in this document.

1.2.Dependencies

CP Flowsheets v1.0.61.1 is for installation on a fully patched VistA system. There is also a Graphical User Interface (GUI) component that should be running on a Windows system.

1.3.Constraints

CP Flowsheets v1.0.61.1 and the associated Mumps (M) patch are expected to be installed on existing VistA platforms. The hardware may reside at local or regional data centers. CP Flowsheets v1.0.61.1 utilizes existing, nationally released security controls to control access.

2. Roles and Responsibilities

No single entity oversees decision making for deployment, installation, back-out and rollback of CP Flowsheets v1.0.61.1. Rather, the Release Agent and Release Coordinators under the Veterans in Process will meet and approve deployment and installation from an OIT perspective. If an issue with the software arises, then the facility CIO and other site leadership will meet along with input from Patient Safety and Health Product Support to initiate a back-out and rollback decision of the software along with Region and Site leadership. The following table provides CP Flowsheets v1.0.61.1 project information.

Table 1: Deployment, Installation, Back-out, and Rollback Roles and Responsibilities

| Team | Phase / Role | Tasks |
|---|--------------|---|
| Site personnel in conjunction with IT support – which may be local or regional. | Deployment | Plan and schedule deployment (including orchestration with vendors) |
| Site personnel in conjunction with IT support – which may be local or regional. | Deployment | Determine and document the roles and responsibilities of those involved in the deployment. |
| Site personnel. | Deployment | Test for operational readiness |
| Site personnel in conjunction with IT support – which may be local or regional. The IT support will need to include person(s) to install the KIDS build as well as the personnel to deploy the GUI – which may be done on each machine, a shared network and/or the Citrix access gateway | Deployment | Execute deployment |
| Site personnel in conjunction with IT support – which may be local or regional. The IT support will need to include person(s) to install the KIDS build as well as the personnel to deploy the GUI – which may be done on each machine, a shared network and/or the Citrix access gateway | Installation | Plan and schedule installation |
| N/A – will work under the VistA ATO and security protocols. | Installation | Ensure authority to operate and that certificate authority security documentation is in place |
| N/A – no equipment is being added. | Installation | Validate through facility POC to ensure that IT equipment has been accepted using asset inventory processes |

| Team | Phase / Role | Tasks |
|--|---------------------|---|
| N/A – no new functionality is being introduced. | Installations | Coordinate training |
| Facility CIO and IT support – which may be local or regional. | Back-out | Confirm availability of back-out instructions and back-out strategy (what are the criteria that trigger a back-out) |
| Hardware and System support – no changes. Software support will be the HPS Clinical Sustainment team. | Post Deployment | Hardware, Software and System Support |

* For Project Phase (See Schedule)

3. Deployment

The deployment is planned as a standard VistA National Patch Module patch rollout. Once approval has been given to nationally release, the patch MD*1.0*61 will be released from the National Patch Module. At this point, it will be available for installation and deployment at all sites.

Scheduling of test/mirror installs, testing and deployment to production will be at the site's discretion. It is anticipated there will be a 30-day compliance period.

3.1. Timeline

There is no timeline specifically for deployment. This is considered a maintenance release and installation will be at the site's discretion, within the constraints of the compliance period for the release.

3.2. Site Readiness Assessment

This section discusses the locations that will receive CP Flowsheets v1.0.61.1 deployment.

3.2.1. Deployment Topology (Targeted Architecture)

CP Flowsheets v1.0.61.1 will be deployed to each VistA instance. That will include local sites as well as regional data processing centers. The executables will also be deployed to the Citrix Access Gateway.

3.2.2. Site Information (Locations, Deployment Recipients)

The initial deployment will be to IOC sites for verification of functionality. Once that testing is completed and approval is given for national release, CP Flowsheets v1.0.61.1 (MD*1.0*61) will be deployed to all VistA systems.

The Production (IOC) testing sites are:

- VA Maryland HCS
- VA Northern Indiana HCS

3.2.3. Site Preparation

There is no special preparation required for CP Flowsheets v1.0.61.1. A fully patched VistA system is the only requirement.

3.3. Resources

N/A

3.3.1. Facility Specifics

N/A

3.3.2. Hardware

N/A

3.3.3. Software

N/A

3.3.4. Communications

Service Delivery and Engineering (SDE) Field Implementation Services will be sending out an Action item and National Change Order prior to the release of CP Flowsheets v1.0.61.1, advising them of the upcoming release.

CP Flowsheets v1.0.61.1 will be deployed using the standard method of patch release from the National Patch Module rather than a phased deployment. When patch MD*1.0*61 is released, the National Patch Module will send a notification to all the personnel who have subscribed to those notifications.

3.3.4.1. Deployment/Installation/Back-Out Checklist

The deployment and installation will be performed by site support personnel once it is nationally released.

4. Installation

4.1. Pre-installation and System Requirements

CP Flowsheets v1.0.61.1 assumes a fully patched Vista system.

4.2. Platform Installation and Preparation

[Vista] This patch should be loaded during non-peak hours to minimize disruption to users. Installation will take less than 5 minutes. Users should be logged out of the system when this patch is installed.

[GUI] The time to deploy the GUI will depend on which method the site utilizes for running the executable (network share, Citrix, individual workstation installations, etc.)

4.3. Download and Extract Files

CP Flowsheets v1.0.61.1 is being released as a PackMan Message distributed through Forum combined with a .ZIP file containing the GUI file(s).

The preferred method is to retrieve files from download.vista.med.va.gov.

This transmits the files from the first available server. Sites may also elect to retrieve files directly from a specific server.

Sites may retrieve the software and/or documentation directly using Secure File Transfer Protocol (SFTP) from the ANONYMOUS.SOFTWARE directory at the following

OI Field Offices:

| Location | Site |
|----------------|--|
| Hines | fo-hines.med.va.gov |
| Salt Lake City | fo-slc.med.va.gov |

Documentation can also be found on the VA Software Documentation Library at:

<http://www4.va.gov/vdl/>

Table 2: Files to be Downloaded (CP Flowsheets v1.0.61.1)

| File Name | File Contents | Download Format |
|-------------|-----------------------------------|-----------------|
| MD_1_61.ZIP | CP Flowsheets executable and help | Binary |

4.4.Database Creation

N/A

4.5.Installation Scripts

N/A

4.6.Cron Scripts

N/A

4.7.Access Requirements and Skills Needed for the Installation

Installation of CP Flowsheets v1.0.61.1 requires the following to install:

- Programmer access to VistA instance and ability to install KIDS build.
- Citrix Access Gateway (CAG) installs – access/ability to upload to the CAG.
- Network Share installs – access/ability to upload executable to the network share location.
- Individual work-station installs – access/ability to push executable to required work stations.

4.8.Installation Procedure

4.8.1.MD*1.0*61 VistA Installation

1. Choose the PackMan message containing this patch and invoke the INSTALL/CHECK MESSAGE PackMan option.
2. Select Kernel Installation & Distribution System Option: Installation
 1. Load a Distribution
 2. Verify Checksums in Transport Global
 3. Print Transport Global
 4. Compare Transport Global to Current System
 5. Backup a Transport Global
 6. Install Package(s)
 7. Restart Install of Package(s)
 8. Unload a Distribution

3. From this menu, you must use the [Backup a Transport Global] option to create a back-out patch
4. Also from this menu, you may elect to use the following options:
 - Verify Checksums in Transport Global
 - Print Transport Global
 - Compare Transport Global to Current System
5. Use the Install Package(s) options and select the package MD*1.0*61
6. If prompted, “Want KIDS to Rebuild Menu Trees Upon Completion of Install?” respond NO.
7. When prompted 'Want KIDS to INHIBIT LOGONs during the install? NO//' respond NO.
8. When prompted ‘Want to DISABLE Scheduled Options, Menu Options, and Protocols? NO//’, respond NO.

4.8.2.CP Flowsheets v1.0.61.1 GUI Installation

The ZIP file contains the CP Flowsheets v1.0.61.1 GUI executable. Download the ZIP file and extract all the files.

4.8.2.1. CP Flowsheets GUI Methods of Installation

The following methods of installation of CP Flowsheets are available. Sites' choice of which method(s) to use will depend upon Regional/VISN policies, Local Area Network (LAN) performance or other local circumstances. User requirements, physical location and methods of connection to the VA network may warrant more than one of the options below to be used.

- **Network (Shared) Installation:**

This method is typically the simplest to maintain, providing the local network infrastructure is robust enough to handle the additional traffic caused by users running the GUI executable (CPFlowsheets.exe) across the LAN.

The GUI executable and related files for each application are copied to a network shared location. Users are provided with a desktop shortcut to run the executable directly from the network shared drive. The necessary command line parameters (Vista server address or name and RPC Broker Port number) are entered in the “Target” field of the shortcut properties.

At the time of a CP Flowsheets version update the copy of the files in their folder are simply replaced, on the network share, with the new versions from the zip file.

Any users requiring access to another site's CP Flowsheets system can be given an alternate desktop shortcut with command line parameters appropriate to the intended target Vista system.

If a user requires access to an older or newer version of CP Flowsheets (e.g. for testing purposes) a different version of CP Flowsheets executable files can be placed in a separate network location and the user be supplied with an appropriate alternate shortcut (different Target path and different Vista server command line parameters).

- **Citrix Installation:**

The GUI executable (CPFlowsheets.exe) and help file (CPFlowsheets.hlp) are installed and run from a remote workstation, and the user views the remote workstation's screen on their local workstation.

For the local site users, this method is on a similar level to the Network (shared) installation above. The users' workstations require only an appropriate shortcut (and the necessary Citrix Access Group (CAG) infrastructure).

Note: For issues with CAG, please contact your local or national help desk.

For the Citrix Farm administrator, this method involves installations on the host in a similar manner to either the Gold Path or the Direct Access methods outlined below.

- **Local Workstation Installation:**

This is the “standard” method of installation where the GUI executable (CPFlowsheets.exe) and help file (CPFlowsheets.hlp) are installed on and run from the user's local workstation. This is outside the scope of the Sustainment team. A National package (CP Flowsheets v1.0.61.1) has been prepared and made available to Regional COR Client Technologies leadership.

The CP Flowsheets installation package can be found on the System Center Configuration Manager (SCCM) central site at the following locations.

- Package Name: 1VA - VA Clinical Procedures Flowsheets
- Package ID: CM200832
- Test Location for SCCM 2007:
 - N/A – SCCM 2007 environment has been frozen. We have moved to CMCB and the level of effort is too great to continue to support both environments any longer.
 - Note: Please use the search functionality to locate a package in CM
- CM Package Source: \\...\Software Packages\VA\Clinical Procedures Flowsheets\1.0.61.1

All details of the SCCM package can be found in the build document and should be reviewed before deployment:

[Solution Delivery VA Clinical Procedures Flowsheet Build Document for Client Workstations](#)

- **Manual Install:**

This method is used primarily for advanced users and at testing locations. This method is somewhat changed from that used previously for Windows XP workstations.

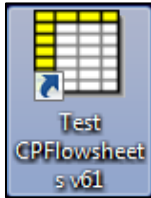
1. Locate the MD_1_61.ZIP and unzip the file.

2. Copy the CPFlowsheets.exe to a test directory, for example, C:\CPFlowsheetsTest. You may need to create this new directory.

Note: You may need to have a user with Administrator rights complete this step.

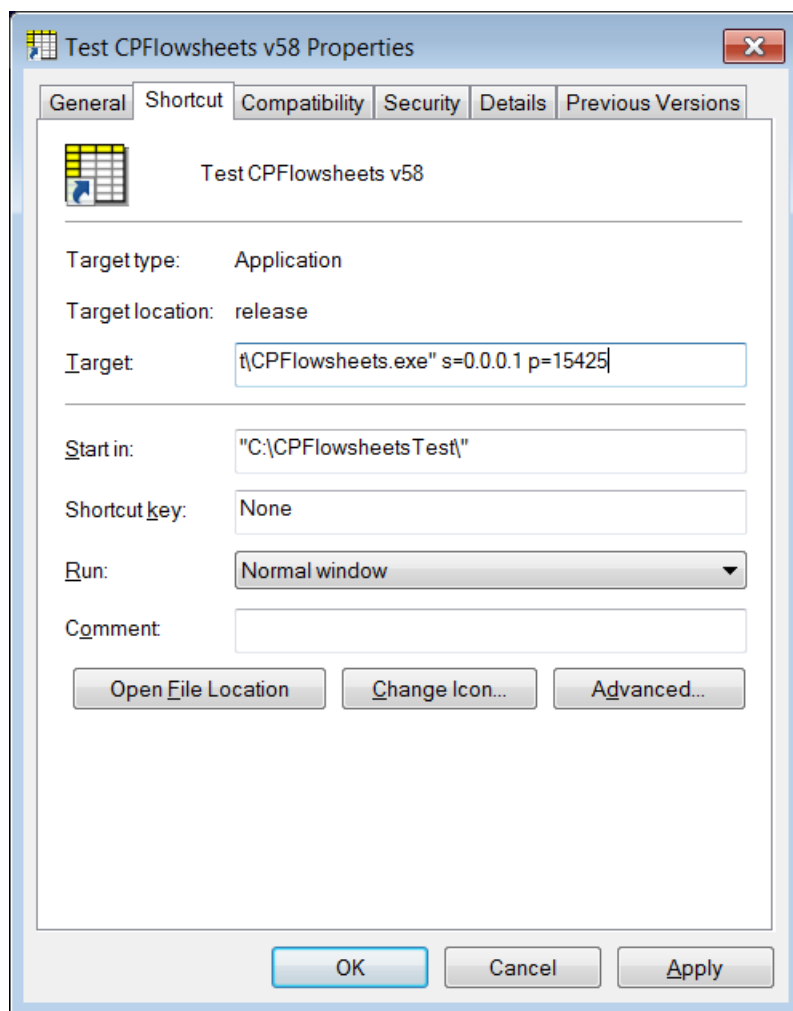
3. Create a Shortcut and name it “Test CPFlowsheets v61”. This is to give the user another visual cue that this is not the normal CP Flowsheets icon.

Figure 1: Example Shortcut for CP Flowsheets v61



4. Copy the CPFlowsheets.hlp file into the same directory as CPFlowsheets.exe (for example, c:\CPFlowsheetsTest).
5. Determine the DNS server name or IP address for the appropriate VistA server.
6. Determine the Broker RPC port for the VistA account.
7. Enter IP (or DNS name) and RPC port in the Target field of the Shortcut properties (or use ServerList.exe).

Figure 2: Test CP Flowsheets v58 Properties



The server and port number shown above are not real and are for example only.

4.9. Installation Verification Procedure

[VISTA] Verify the checksum of routine MDPOST61 is equal to the checksum listed on the patch description.

[GUI] Launch the CP Flowsheets GUI and verify the splash screens now announce you are running version 1.0.61.1.

4.10. System Configuration

N/A

4.11. Database Tuning

N/A

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5. Back-Out Procedure

5.1.Back-Out Strategy

[VistA] In section 4.8.1 (step 3), the individual installing the patch used option [Backup a Transport Global] to create a PackMan message that will revert the CP Flowsheets components to their pre-v1.0.61.1 state. This includes everything transported in the MD*1.0*61 (CP Flowsheets v1.0.61.1) build. If for any reason that PackMan message cannot be located, contact the HPS Clinical Sustainment team (see section 5.6).

[GUI] Redistribute the previous GUI to revert the CP Flowsheets GUI.

5.2.Back-Out Considerations

5.2.1.Load Testing

No load testing was performed on CP Flowsheets v1.0.61.1. This was a maintenance release to correct defects discovered in CP Flowsheets v1.0.58.1. There was no additional functionality included.

5.2.2.User Acceptance Testing

User acceptance testing was conducted by the test sites listed in section 3.2.2.

The sites followed the provided test plan and executed the test cases according to the plan for the first build of MD*1.0*61. The sites either passed or failed any item based on testing. The tests were performed by Clinical Application Coordinators at each site who are familiar using the application. The test cases were then delivered with concurrence by the sites to the HPS Clinical Sustainment team. Any items that failed were re-developed and then sent back to the sites for the next build and further acceptance testing following the same process. Once in production, the same final test cases from the last build were tested in production. No subsequent builds were created as the test cases passed and sites signed off on concurrence for release of the product.

5.3.Back-Out Criteria

Back-out would only be considered if there was a catastrophic failure that causes loss of function for the application and a significant patient safety issue.

5.4.Back-Out Risks

Backing out CP Flowsheets v1.0.61.1 would result in the re-instatement of the issues addressed in CP Flowsheets v1.0.61.1.

In addition, there is a risk that the process, which would be performed only in an emergent situation, would significantly impact patient care due to the interruption.

5.5.Authority for Back-Out

The Facility CIO has the final authority to require the rollback and accept the associated risks

5.6.Back-Out Procedure

These steps assume that the only reason to consider a back-out for CP Flowsheets v1.0.61.1 is in the event of a catastrophic failure.

Note: The Vista Changes and GUI changes are independent of each other. In the case of a catastrophic failure of the GUI, the VistA Patch can remain in the system; consequently, if the catastrophic failure is in the VistA side, the site can back out the VistA patch and continue to use the updated GUI.

1. Contact the HPS Clinical Sustainment implementation team to notify them there has been a catastrophic failure with CP Flowsheets v1.0.61.1. Use the following contacts :

Table 3: HPS Clinical Sustainment Contacts

| Name & Title | Email | Telephone Number |
|--------------------------------|--|------------------|
| Megan Lucas Project Manager | Megan.Lucas@va.gov | 240-405-7011 |
| Chris Bell Technical Leader | Christopher.Bell2@va.gov | 941-592-5820 |
| David Michael Developer | David.Michael@va.gov | 918-494-8696 |

2. If you need to proceed with the back-out and rollback, the HPS Sustainment Clinical team is available to assist with sites that have misplaced their backup PackMan message. They will also give you the instructions on downloading the executable.
3. [VistA] (if needed)
 - a. Open the backup MailMan message
 - b. At the “Enter message action (in IN basket): Ignore//” prompt enter “X” for [Xtract PackMan]
 - c. At the “Select PackMan function:” prompt select [INSTALL/CHECK MESSAGE].
 - d. At the “Do you really want to do this? NO//” prompt enter “YES”.
 - e. If desired, at the “Shall I preserve the routines on disk in a separate back-up message? YES//” press Enter and appropriately fill out the prompts that follow.
 - f. At a programmer’s prompt, enter the following command to reset the expected CP Flowsheets version number: D ROLLBACK^MDPOST61

[GUI] (If needed) Coordinate with the appropriate IT support, local and regional, to schedule the time to install MD*1.0*58, and to push out / install the previous GUI executable.

4. Once MD*1.0*58 and CP Flowsheets v1.0.58.1 have been installed, verify operations before making available to all staff.

5.7.Back-Out Verification Procedure

1. Ensure the CP Flowsheets v1.0.58.1 executable launches properly.
2. Perform site-specific testing appropriate to the areas where the catastrophic failure was identified.

6. Rollback Procedure

6.1. Rollback Considerations

N/A

6.2. Rollback Criteria

N/A

6.3. Rollback Risks

N/A

6.4. Authority for Rollback

The Facility CIO has the final authority to require the rollback and accept the associated risks.

6.5. Rollback Procedure

Back-out will automatically rollback version.

6.6. Rollback Verification Procedure

N/A